

**TEMPERATURE COMPENSATION OF FIBER OPTIC
TRANSCEIVERS USING OPTIMIZED CONVERGENCE
ALGORITHMS**

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Abstract

A temperature compensation system comprises a laser driver having a first potentiometer, the laser driver configured to provide a first signal to a laser based on a value of the first potentiometer and an optical communication analyzer configured to provide a second signal indicative of a first output parameter of the laser. The temperature compensation system comprises a computer system configured to drive the first signal and receive the second signal and determine a first updated value for the first potentiometer to obtain a first desired laser output parameter value based on a first known value of the first potentiometer, the second signal, and the first desired laser output parameter value.